

 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 16-01-020
	DATE APRIL 2016	MODEL(S) SONATA HYBRID (LF HEV) SONATA PLUG-IN HYBRID (LF PHEV)
SUBJECT: ENGINE ELECTRIC WATER PUMP WIRING (SERVICE CAMPAIGN TDD)		

★ IMPORTANT

***** Dealer Stock and Retail Vehicles *****

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

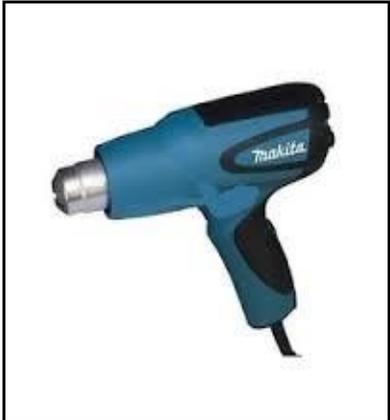
Description: Some 2016 Sonata Hybrid and Plug-In Hybrid vehicles may experience a power reduction accompanied by illumination of multiple warning lights in the instrument cluster. This condition may be due to an intermittent electrical short between the vehicle's 12 volt power and the Control Area Network (CAN) "High" signal in a circuit board in the Engine Electric Water Pump (EEWP). This bulletin describes the service procedure to modify the EEWP wiring harness to eliminate the potential for a short of the CAN signal.



Applicable Vehicles: Certain 2016 Sonata Hybrid (LF HEV) / Sonata Plug-In Hybrid (LF PHEV)

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

Parts Information (Dealer Supplies Tools and Parts):

HEAT SHRINK TUBE WITH RESIN	BLACK ELECTRICAL TAPE	HEAT GUN
 <p>3/16 Inch Diameter 1.5 Inch Length (cut to size) QTY: 2</p> <p>NOTE: Shrink Tubes can be sourced at http://www.shopwurthusa.com with Wurth Part #: 17730276.</p>		

Warranty Information:

OP CODE	OPERATION	OP TIME
60C037R1	EEWP (ENGINE ELECTRIC WATER PUMP) WIRING REPAIR	0.4 M/H

NOTE 1: Submit Claim on Campaign Claim Entry Screen.

NOTE 2: If a part is found in need of replacement while performing Campaign TDD and the affected part is still under warranty, submit a separate warranty claim using the same Repair Order. If the affected part is out of warranty submit a Prior Approval Request for goodwill consideration prior to performing the work.

NOTE 3: Reimbursement for supplies will be included in the Campaign Claim Sublet field.

Service Procedure:

1. If applicable, record the customer's radio preset stations for AM/FM/XM.
2. Pull hood release to open the hood.



3. Press the trunk button to open the trunk.



4. Open the battery cover.



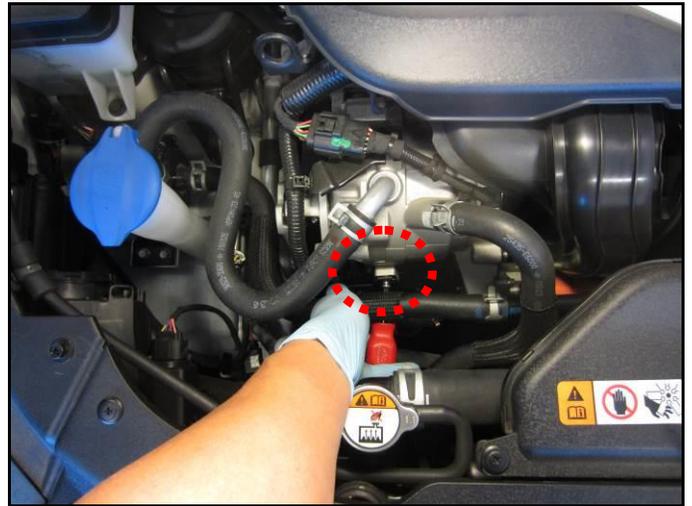
5. Disconnect the negative battery terminal.

Negative battery terminal tightening torque:

4.0 ~ 6.0 N.m (0.4 ~ 0.6 kgf.m, 3.0 ~ 4.4 lb-ft)



6. Use a short Phillips screwdriver to remove the screw holding the bracket which holds the Engine Electric Water Pump Harness.



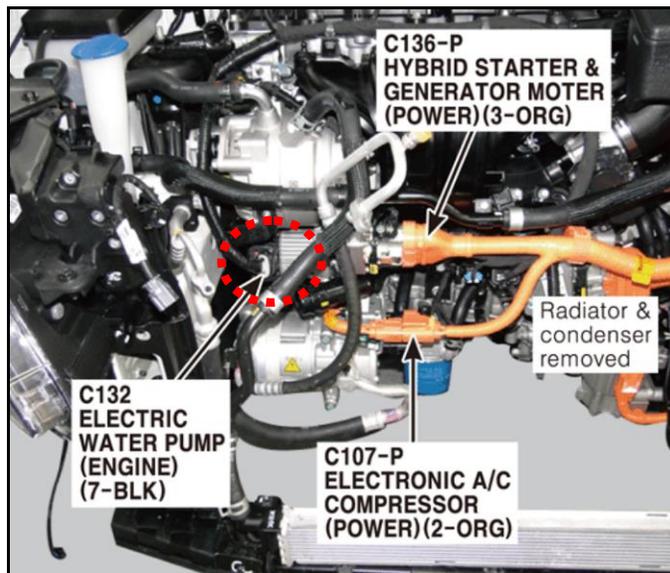
7. Locate the Engine Electric Water Pump Connector and disconnect it.

NOTICE

The Engine Electric Water Pump connector is located under the HSG (Hybrid Starter Generator).

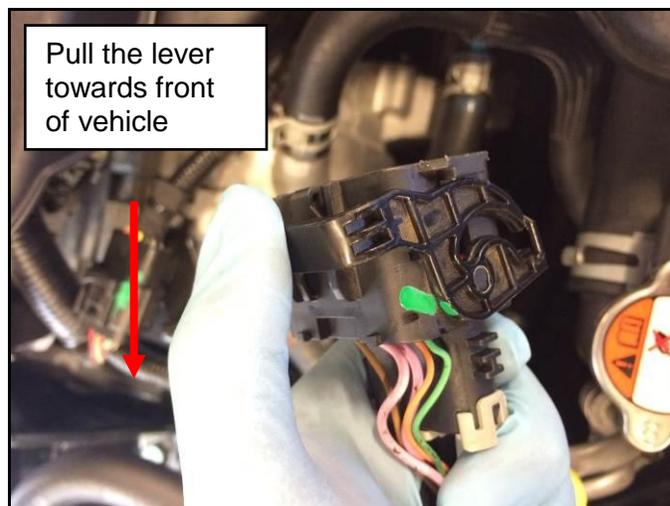


Image to the right illustrates the location of the Engine Electric Water Pump Connector.



How To Disconnect The Engine Electric Water Pump Connector:

- A. Use your left hand to remove the connector.
- B. Using your thumb, press on the locking tab.
- C. Pull on the connector lever towards the front of the vehicle.
- D. If the lever does not move, press on the locking tab and try again.



8. Use a needle nose plier to pinch the locking tabs to remove the harness from the bracket.



Picture of harness removed from the bracket.



9. Remove the electrical tape as shown in the picture.



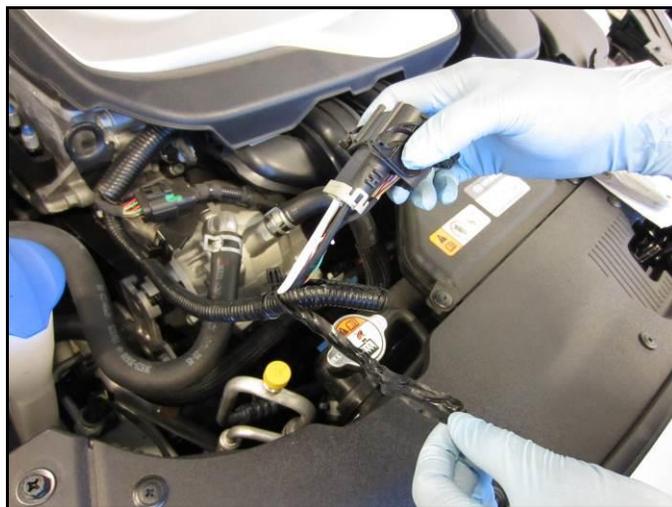
- Use a razor blade to carefully make a light incision to cut the electrical tape.

CAUTION

When making the incision, be careful not to cut the wires.

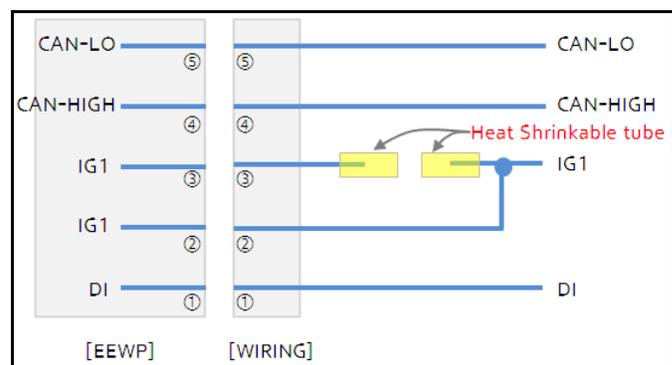


Picture of the electrical tape removal from the incision above.

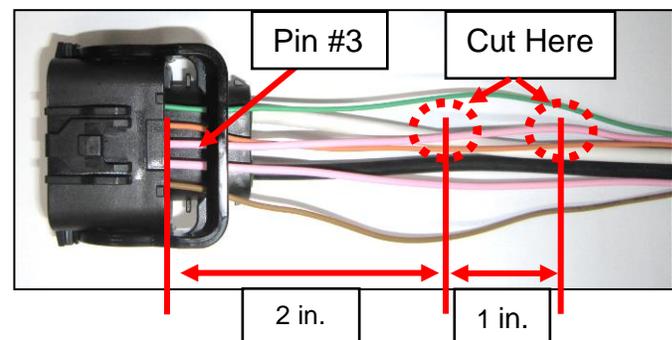


- Locate the Pink wire (Pin #3) and use a cutter to cut the wire.

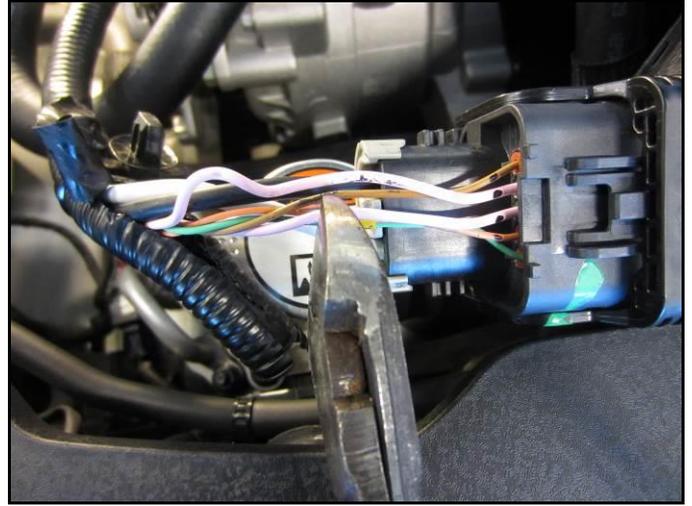
Cut the wire approximately two inches away from the connector. Make another cut of approximately 1 inch further as shown in the picture.



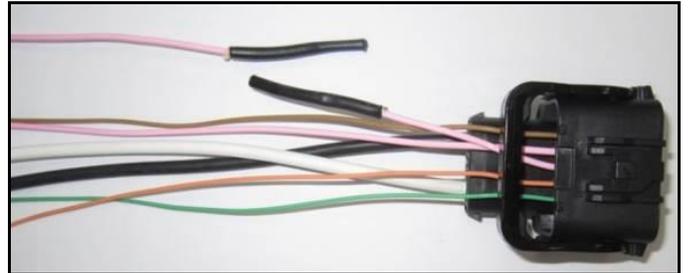
Discard the 1 inch section of the wire.



Picture of wire #3 being cut using a wire cutter.



12. Insert the shrink tube to each end of the wires and use a heat gun to shrink it.



13. Use electrical tape and tape the small wires together.



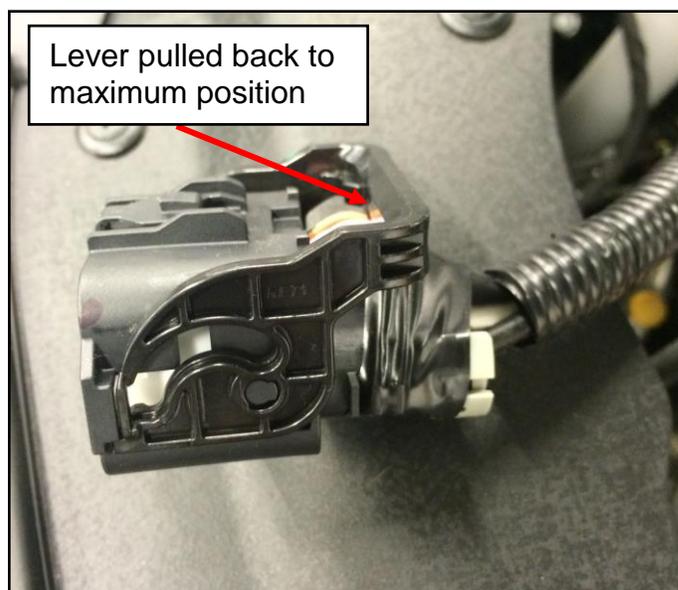
14. Use electrical tape and tape the entire harness as shown in the picture.



15. Reconnect the Engine Electric Water Pump Connector to the water pump unit.

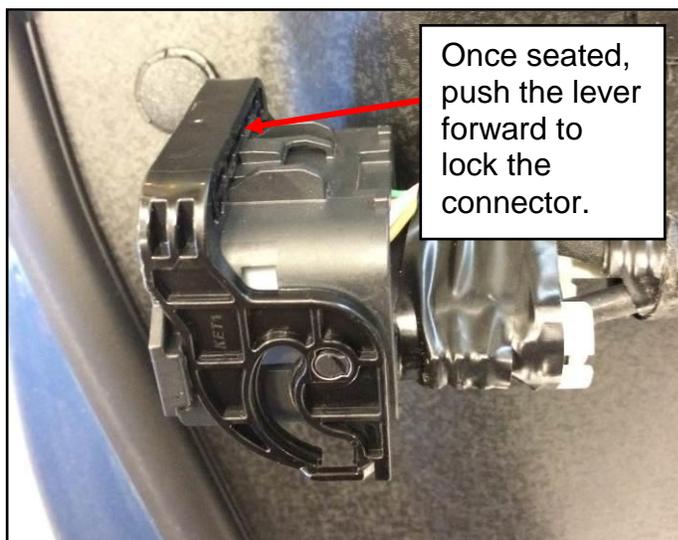
How To Connect The Engine Electric Water Pump Connector:

- A. Pull the lever back to the maximum position as shown in the picture.
- B. Insert the connector to the water pump unit.
- C. Once seated, push the lever forward to fully lock the connector.



NOTICE

Ensure the connector is fully seated and secured, by gently pulling on the Engine Electric Water Pump harness.



16. Install all removed parts in reverse order of removal.
17. Reconnect the negative battery terminal.
18. Turn the ignition ON and confirm no DTC(s) are present.

If a DTC(s) is present, use the GDS to clear the code.

If applicable, clear any DTCs in the Blue Link system per instructions of TSB 12-BE-005-2.

19. If applicable, reprogram the customer's radio presets for AM/FM/XM.